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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,947	12/10/2003	Justin L. Kreuzer	1857.0140002/JDE	6299

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EXAMINER	
CURTIS, CRAIG	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,947	KREUZER, JUSTIN L.	
	Examiner	Art Unit	
	Craig Curtis	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Disposition of the Instant Application

- This Office Action is responsive to Applicant's Amendment filed on 31 August 2004, which has been made of record in the file.
- By this amendment, Applicant has amended claims 4-6, 8, 9, and 12.
- Claims 1-12 are presently pending in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1 and 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (5,715,084) in view of Owen et al. (5,593,606).

With regard to claim 1, Takahashi et al. disclose the invention as claimed—an optical system comprising:

a wave plate (4 in Fig. 1);

a reticle (1 in Fig. 1); and

a first optical device (elements 2 and 5 in Fig. 1),

wherein the reticle is positioned along an axis of a light beam path between a source of the light beam and the first optical device (see Fig. 1), and

wherein the wave plate is positioned along the axis adjacent (read: nearby) the reticle and between the source of light and the first optical device (see Fig. 1)—**EXCEPT FOR** an additional teaching wherein said wave plate is a variable wave plate.

Owen et al., however, disclose a variable wave plate (see 42 in Fig. 1; also see col. 4, ll. 13-19) positioned along an axis of a light beam path between a source of a light beam and a first optical device (id.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Takahashi et al. such that said wave plate be variable, such a wave plate being explicitly taught by Owen et al., for at least the purpose of enabling a user of said optical system to make adjustments, when necessary, to ensure that the wave plate impart the desired degree of circular polarization to light propagating through said optical system.

With regard to claim 4, the combination discloses wherein said first optical device comprises (an open-ended transitional phrase):

a first lens group (viz., 2: see col. 3, ll. 20-21);

a reflective device positioned to receive light from said first lens group (viz., 6); and

a second lens group positioned to receive light from said reflective device (viz., 5: see col. 3, ll. 27-28).

With regard to claim 5, please see column 3, lines 20-21 of **Takahashi et al.**

With regard to claim 6, please see column 3, lines 27-28 of **Takahashi et al.**

With regard to claim 7, please see Fig. 1 of **Takahashi et al.**

With regard to claim 8, the combination further discloses a beam directing system (3 and 6 in Takahashi et al.) positioned to receive light from said first optical

device (see Fig. 1 in Takahashi et al.); and a second optical device (8) positioned to receive light from the beam directed [read: beam directing] system. See Fig. 1 in **Takahashi et al.**

With regard to claims 9 & 10, please see beam splitter 3 and concave mirror 6 depicted in Fig. 1 of **Takahashi et al.**

With regard to claim 11, please see quarter-wave plates 4 and 7, respectively.

With regard to claim 12, the combination further teaches wherein said second optical device (viz., 8) has a positive optical power. See column 3, lines 59-61 of **Takahashi et al.**

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (5,715,084) in view of Owen et al. (5,593,606), as applied above to claim 1, and further in view of Zhang et al. (5,952,818).

The combination discloses the claimed invention as set forth above **EXCEPT FOR** an explicit teaching wherein said variable wave plate is a **Berek (N.B. not Berek's)** compensator. (Emphasis added.)

Zhang et al., however, explicitly teach the use of a Berek compensator as a variable wave plate. See Fig. 1 (compensator C); also see col. 7, ll. 23-35. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the optical system of the combination such that its variable wave plate be a Berek compensator, **Zhang et al.** providing an explicit teaching of the use of a Berek compensator as a variable wave plate, for at least the purpose of enabling fine control of the polarization state of light in said optical system.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (5,715,084) in view of Owen et al. (5,593,606), as applied above to claim 1, and further in view of Johnson et al. (4,342,517).

The combination discloses the claimed invention as set forth above **EXCEPT FOR** an explicit teaching wherein said variable wave plate is a Soleil-Babinet compensator.

Johnson et al., however, explicitly teach the use of a Soleil-Babinet compensator as a variable wave plate. See col. 4, ll. 34-35. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the optical system of the combination such that its variable wave plate be a Soleil-Babinet compensator, **Johnson et al.** providing an explicit teaching of the use of a Soleil-Babinet as a variable (read: adjustable) wave plate, for at least the purpose of enabling fine control of the polarization state of light in said optical system.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of *U.S. Patent No. 6,680,798*. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter is sufficiently similar to that claimed in the above-referenced patent that it would have been obvious to one having ordinary skill in the art at the time the application for said patent was filed to have claimed the invention disclosed in the instant invention. For example, compare independent claim 1 in the instant application with independent claim 3 in the above-referenced patent.

Response to Arguments

5. Applicant's arguments filed on 31 August 2004 with respect to claims 1-12 have been considered and found persuasive in part (specifically, with respect the previously asserted rejections under 35 U.S.C. § 112, second paragraph, which rejections have been withdrawn) and moot in part in view of the new ground(s) of rejection set forth hereinbefore. By way of clarification, although the references relied upon in the present rejection of the claims are the same as those relied upon in the previous Office Action, certain of the elements taught in these references have newly been associated with various of the elements recited in the claims of the instant invention. With particular reference to Applicant's contention regarding the inappropriateness of the Examiner having asserted that "adjacent" means nearby, it is noted that Applicant has provided the same definition of "adjacent." See (6) close to; ***nearby***, recited on page 7, line 19 of Applicant's remarks. (Emphasis added.)

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Curtis, whose telephone number is (571) 272-2311. The examiner can normally be reached on Monday-Friday, 9:00 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn, can be reached at (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.H.C.
Craig H. Curtis
Group Art Unit 2872
10 November 2004

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